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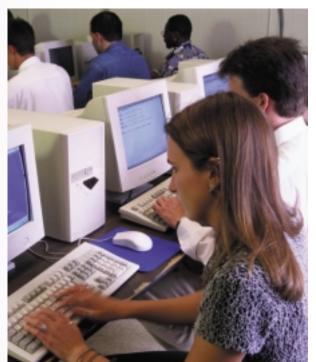
New technology and growing global trade have changed the U.S. economy's mix of jobs and industries. Computers have revolutionized work and workplaces and raised the skill requirements for many jobs. Employers' need for greater workforce flexibility, coupled with efforts to hold down benefit costs, will increase demand for nontraditional workers. This chapter examines the effects of these changes on American workers.

# EMPLOYERS ARE DEMANDING HIGHER SKILLS

Demand for higher-skilled employees is a 50-year trend that has become increasingly important. Where strength and manual dexterity used to be enough to ensure employment and a comfortable standard of living, more jobs now and in the future will require verbal and mathematical, as well as organizational and interpersonal, skills. Emerging technologies, globalization, and the information revolution are also increasing demand for high-tech skills. Workers welcome the increasing number of new job opportunities available in a broad spectrum of industries. The want ads, clamoring for workers in the information technology, communications, and service industries, reflect both the increased opportunities for workers and

the increased need for up-to-date skills. American workers and businesses are responding by investing in more education and training.

In the midst of the creation of these new hightech jobs, most current jobs will endure, albeit in altered form. Skills will need updating as technology introduces new ways of completing age-old tasks. For example, many classroom teachers will continue to stand before their students, while some will appear by video or satellite hook-up and answer student questions at night via e-mail. Editors will still work their magic on the written word, but many will do so from their homes or anywhere a modem is available. The fundamental skills used by these workers will endure but they will also need new skills to function effectively. There are few working Americans who will not face the need for supplementary skills to remain competitive in their existing jobs.



# workplace change

TABLE 7.1 Employment by major occupational group, 1986, 1996, and projected 2006 (numbers in thousands of jobs)

Occupational group	Employment					Change					
	Number		Percent distribution			Number		Percent			
	1986	1996	2006	1986	1996	2006	1986–96	1996–2006	1986–96	1996–2006	
Total, all occupations	111,375	132,353	150,927	100.0	100.0	100.0	20,978	18,574	18.8	14.0	
Executive, administrative, and managerial	10,568	13,542	15,866	9.5	10.2	10.5	2,974	2,324	28.1	17.2	
Professional specialty	13,589	18,173	22,998	12.2	13.7	15.2	4,584	4,826	33.7	26.6	
Technicians and related support	3,724	4,618	5,558	3.3	3.5	3.7	894	940	24.0	20.4	
Marketing and sales	11,496	14,633	16,897	10.3	11.1	11.2	3,137	2,264	27.3	15.5	
Administrative support, including clerical	20,871	24,019	25,825	18.7	18.1	17.1	3,147	1,806	15.1	7.5	
Service	17,427	21,294	25,147	15.6	16.1	16.7	3,867	3,853	22.2	18.1	
Agriculture, forestry, fishing, and related occupations	3,661	3,785	3,823	3.3	2.9	2.5	124	37	3.4	1.0	
Precision production, craft, and repair	13,832	14,446	15,448	12.4	10.9	10.2	614	1,002	4.4	6.9	
Operators, fabricators, and laborers	16,206	17,843	19,365	14.6	13.5	12.8	1,637	1,522	10.1	8.5	

SOURCE: George Silvestri, "Occupational employment projections to 2006," Monthly Labor Review, November 1997, p. 59.

# The changing skill content of jobs

Skill requirements have increased for many jobs in the U.S. economy, but a closer examination reveals a more complex relationship between technology and job content. Consider the change in machine shops from manually-operated machine tools, such as lathes and drilling machines, to computer-programmed machine tools. Manual operation required skill in reading gauges and other measurement devices, as well as manual dexterity acquired through relatively long periods of training and doing. Contrast this with the requirements for users of newer, computer-programmed machine tools. Newer machine tools require much less manual dexterity, but they demand computer literacy and perhaps some programming—a very different skills package.

### B O X 7.1

#### America's Jobs Network

How will those who seek twenty-first century skills training find out what is "out there?" Through America's Jobs Network. America's Jobs Network, a new umbrella for all federally funded training-related activities, will identify services available for those looking for jobs, wishing to acquire skills, or seeking new workers. The Network design will also ensure that state and local employment and training partners can target their resources to where they are needed most. It will include a tollfree telephone number to allow everyone access to information on the services available throughout the workforce investment system.

The Network will be available to everyone from the high-school sophomore curious about possible career paths, to the older worker contemplating a return to the labor market, to the disabled individual or at-risk youth who may require special services and support. An integrated set of automated tools called America's Career Kit—which includes America's Job Bank, America's Talent Bank, America's Career InfoNet, O\*NET, and America's Learning Exchange—will allow customers immediate access to world-class labor market products and information from One-Stop offices, public libraries, community colleges, community-based organizations, or via the Internet.

The machine-tool operator today is more likely to insert a programmed diskette into a control module than to set measurement devices manually. The computer program itself is likely to have been written by a programmer, not by a machine-tool operator on the shop floor. Though it might appear that machine-shop workers' skill requirements have decreased, some workers may exercise discretion over the programmed tool. In fact, some jobs in the machine shop have been "de-skilled" while others have been redesigned to require formal education in new, abstract skills such as use of programming languages.

The Bureau of Labor Statistics (BLS) periodically projects the types of jobs that will be needed in the U.S. workforce. Table 7.1 shows the latest BLS projections of the occupations in the U.S. labor force to the year 2006.

The occupational groups that require the most education are projected to be among the fastest-growing. Employment in professional specialty occupations is projected to increase the fastest. Technicians and related support occupations will have the second fastest growth rate.

# **Post-school training**

To meet rising skill needs, young workers are raising their skills, not only by obtaining more schooling, but also by participating in post-school training to a somewhat greater extent than did previous generations. Between 1983 and 1991, the number of 20-to-24-year-olds participating in formal job training programs increased from 8 percent to 10 percent. Younger workers also participated in post-school adult education and training activities at higher rates than their older counterparts. More than half of all 17-to-27-year-olds had participated in post-school

adult education and training activities since leaving full-time schooling. In contrast, only 40 percent of workers over 60 years old had ever participated in adult education and training.<sup>2</sup>

Much of the investment in post-school adult education is being made by workers who already have higher levels of formal educational attainment. From 1990 to 1991, nearly 80 percent of young workers with some college education had participated in post-school education and training since leaving full-time schooling. Fewer than half of young workers with a high-school degree but no college, and only 22 percent of young workers with no high-school degree, had participated in postschool training.

Large discrepancies also exist among young workers in terms of specific types of employmentrelated training. The group with some college study participated in supervisory, professional development, or sales and marketing training at about twice the rate of those with only a high-school education. The very low participation rates in computer software training among young highschool-only workers (6 percent) and among high-school dropouts (under 2 percent) is particularly disturbing given the evidence that using a computer on the job significantly raises earnings.3

## Basic skills are not so basic anymore

Although the workforce's educational attainment is at an all-time high, and younger workers are increasing their amount of post-school education and training, more is needed, especially in job-

related basic skills. Consistent with the finding that approximately 20 percent of the population reads at or below the fifth-grade level, a 1996 American Management Association (AMA) survey of midsized and larger businesses found that 19 percent of job applicants taking employer-administered tests lacked the math and reading skills necessary in the jobs for which they were applying. The AMA's 1998 survey, however, found that this percentage had increased to almost 36 percent.

The sharp increase in the deficiency rate is due, the 1998 AMA report concluded, not to a "dumbing down" of the incoming workforce but to the higher literacy and math skills required in today's workplace. When labor markets are tight, employers may find it necessary to test a greater number of applicants to find qualified workers. The 1998 study found that although the overall percent of low-education workers increased, companies faced with continuing skills shortages were more willing to hire skills-deficient applicants and train them through remedial programs.4

## WORK REFORMS CAN INCREASE PRODUCTIVITY . . . AND RESHAPE WORKPLACES

Along with efforts to improve productivity through increased worker skills, many employers are trying to improve productivity by reforming the way they organize work and motivate workers. Work reform movements typically proceed in cycles of enthusiasm followed by disillusionment,5 but, after trial and error, the best elements usually become part of the accepted way of doing business. Successful reforms will shape the workplaces of the future.

y interest is in the future because I am going to spend the rest of my life there.

Charles Franklin Kettering **Inventor** 

To increase quality and lower costs, some firms are experimenting with greater worker involvement and interaction, through innovative work practices such as worker teams, total quality management, quality circles, peer review of employee performance, worker involvement in purchase decisions, and job rotation. Labor unions often work with employers to put such concepts into practice in the workplace.

Additional practices used to boost productivity include profit sharing, linking pay to performance, decentralizing responsibility, and increasing worker autonomy.7 Changes in workplace and factory layouts may also increase efficiency and reduce ergonomic-related injuries. Such work practices can often result in high performance particularly when combined with increased training, new technology, improved communications among producers, suppliers, customers, and company divisions, or new tools for inventory and quality control. Organizations that integrate several of these approaches have been called "high performance" work organizations.8 Many workplaces, including many where workers are represented by a union, have adopted one or more of these work practices. The Wisconsin Regional Training Partnership, for example, is an organization in which labor and management cooperate, both within and across firms, to build high-performance workplaces where continuous education and innovation are the norm.

Companies now use computers and telecommunications tools to link to customers and suppliers. Sometimes, because of these new tools,



companies faced with rapidly changing market conditions rely upon the increased involvement of workers and their unions in managing the production process. Workers and their unions, often through use of teams, can help management to anticipate problems and bottlenecks, participate in new product development, monitor quality, address safety and health issues, and so on.

# Increasing the employee stake in company performance

Many firms are experimenting with linking worker pay and company performance more directly through profit sharing.<sup>9</sup> Gain sharing is another type of compensation system in which pay corresponds more directly to worker performance.<sup>10</sup> Some companies allow workers to buy company stock through

payroll deductions at rates discounted from the market share price. These practices increase the economic stake that workers have in company performance. Now limited to a small percentage of the workforce, these direct linkages of employees to the success of their companies, if they pay off in company productivity, are likely to spread.

In 1993, BLS gathered data on the organization of work and employer-provided training.<sup>11</sup> The survey covered eight alternative work organization practices: worker teams, total quality management, quality circles, peer review of employee performance, worker involvement in purchase decisions, job rotation, just-in-time inventories, and compensation systems based on a "pay for knowledge" system. The survey found that 42 percent of workplaces used at least one of these practices. In 1994, the Commission on the Future of Worker-Management Relations found that over 95 percent of the largest employers used employeeinvolvement mechanisms.

Using these new performance-enhancing strategies goes hand in hand with training workers and enhancing their skills. The BLS survey showed that nearly all (98 percent) of the establishments that used these new practices also provided formal training opportunities for their workers. In contrast, only 80 percent of establishments that did not adopt any of the newer workplace practices provided formal training. The difference in the intensity of training (measured by the number of hours per worker) was even more dramatic. Workers in establishments providing both training and new

workplace practices spent four times as many hours in training than did workers in establishments providing none of these newer workplace practices.12

The effectiveness of alternative work organizations depends on appropriate human resource management. One recent analysis maintained that innovative work practices can improve the economic performance of a company only if three requirements are met:

- The employees possess knowledge and skills that managers lack;
- The employees are motivated to apply these skills and knowledge; and
- The organization is structured to channel these skills and knowledge towards improving productivity.13

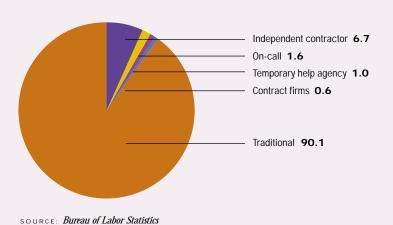
Many experiments in work organization have resulted in dramatic changes in the way companies operate. Not all will prove superior to previous approaches, but those that do improve productivity are more likely to be found in the workplaces of the future.

## NONTRADITIONAL WORKERS ARE AN IMPORTANT PART OF THE WORKFORCE

Future employers will demand not only increased skills and high-performance workplace practices but also a more flexible workforce. Labor market experts believe that nontraditional workers—people who work in alternative arrangements such as on call workers, independent contractors, temporary help or leasing agency workers, as well as contingent workers—will be a larger share of the future workforce. This section examines those who make up this growing nonstandard workforce.

## C H A R T 7.1

# Percent of employed persons with alternative and traditional work arrangements



## TABLE 7.2

Employers use of nontraditional workers, percent change since 1990

	Type of work arrangement					
Use of workers	Temporary help agency	Part-time	On-call			
Increased	24	25	18			
Decreased	24	9	15			
Remained the same	48	65	65			
Don't know	4	2	3			

SOURCE: Susan Houseman. Temporary, Part-Time and Contract Employment in the United States: A Report on the W.E. Upjohn Institutes's Employer Survey on Flexible Staffing Policies. November 1996, rev. June 1997.

## Nontraditional work arrangements

Contingent workers. According to BLS, contingent workers are "individuals who do not perceive themselves as having an implicit or explicit contract for ongoing employment." Such workers were 4.4 percent of the workforce in 1997, a slight reduction from 1995 (4.9 percent).14 (Currently, data are only available for both contingent and alternative work in 1995 and 1997. 15) Contingent workers also earn lower wages than noncontingent workers. The median wage earned by full-time contingent workers was 82 percent of that of full-time noncontingent workers. Furthermore, contingent workers are much less likely to have employer-provided health insurance or to be eligible for employer-sponsored pension plans. Younger people are more likely to be contingent workers, as are blacks and Hispanics, although the proportion of black workers who are contingent workers declined from 6.1 percent in 1995 to 4.6 percent in 1997.16

**Alternative work arrangements.** BLS defines four work arrangements as alternative: independent contractors, on-call workers, employees of temporary help agencies, and employees of contract companies.<sup>17</sup> In 1995 and 1997, these workers were 9.9 percent of all employed workers.<sup>18</sup> (*See chart 7.1.*)

There are broad differences in the characteristics and earnings of the four types of workers in alternative work arrangements. For example, in 1997, among full-time workers' median weekly earnings, contract firm workers' earnings were the highest of all alternative arrangements (\$619), higher even than workers in traditional arrange-

ments (\$510). Independent contractors earned \$587, while earnings for on-call workers (\$432) and employees of temporary help agencies (\$329) were lower. These differences are partly reflected in the occupational concentration of each arrangement: for example, independent contractors are more likely to be in higher-paying managerial and professional specialty jobs as opposed to temporary help agency workers, who are typically employed in administrative support and laborer jobs.

**Part-time workers.** Part-time workers are defined by BLS as persons at work less than 35 hours a week for a reason other than temporary absences such as a holiday. Their proportion of total employed persons rose from 13 percent in 1956 to 17 percent in 1979, but the upward trend slowed in the 1990s.<sup>19</sup>

**Multiple-job holders.** BLS data indicate that multiple-job holders tend to be represented in relatively equal proportions at all levels of wages and are as likely to be women as men. Multiple-job holders increased from 5.2 percent of the working population in 1970 to 6.0 percent in 1998.<sup>20</sup>

## **Employer use of nontraditional staffing**

Nontraditional staffing is widespread—in all industries and in establishments of all sizes—and it has grown in the 1990s. (See table 7.2.) Part-time workers—used in 72 percent of all establishments—are the most common nontraditional arrangement. However, even when the part-time category is excluded, nearly four out of five employers used some form of nontraditional staffing arrangement, and many used more than one.<sup>21</sup>

B O X 7.2

Look who's temping now . . .

In 1946, Russell Kelly started a business that by 1957 was incorporated as Kelly Girls Services, Inc. The company originally operated only in Detroit, and nearly 100 percent of its revenue came from placing secretaries and clerical workers in temporary jobs.

In 1966, the company became Kelly Services, Inc. By 1996, it ranked number 406 on the list of Fortune magazine's 500 largest companies in America. Today, no longer just a temporary help agency, the firm comprises a range of specialized leasing and contracting companies operating in 19 countries. In 1997, roughly 15 percent of its revenue was generated by professional and technical placements, such as biologists, lawyers, accountants, chemists, and computer analysts. By 1998, the revenues from these highly skilled placements had increased to 20 percent, a proportion expected to increase in the future.

Kelly is just one of a growing number of businesses that provide highly trained temporary workers in short order, allowing employers to augment their workforces to meet specific and immediate needs.

Among the most common reasons employers cite for using nontraditional workers are to accommodate workload fluctuations and to fill positions that are temporarily open due to permanent employees' short-term absences. Employers expect to use nontraditional staffing arrangements much more in the future.<sup>22</sup>

#### Attributes of nontraditional work

**Benefits.** In a 1996 survey of over 500 employers, the per-employee cost of wages plus benefits was considerably lower for nontraditional workers, especially for on-call workers. It was also considerably lower for part-time workers. This was largely due to the fact that these workers were ineligible for employer-provided retirement and healthcare benefits.<sup>23</sup> For example, only 7 percent of temporary help agency workers and 20 percent

TABLE 7.3

Percent of workers with health insurance and pension coverage by work arrangements, 1997

Type of work arrangement								
Health and pension status	Traditional	Contingent	On-call	Temporary help agency	Contract company	Independent contractor		
Health insurance from any source	83	67	67	46	82	73		
Employer-provided health insurance: Eligible Receiving	73 61	35 22	31 20	26 7	69 50	n/a 3		
Pension coverage from any source	50	16	19	4	36	37		
Employer-provided pension coverage: Eligible Receiving*	57 48	23 16	25 19	10 4	46 36	n/a 14		
Number (thousands	107,689	5,140	1,996	1,300	809	8,456		

SOURCE: Steven Hipple. "Contingent work: results from the secondary survey." *Monthly Labor Review.* November 1998, table 10, p. 30. Sharon Cohany. "Workers in alternative employment arrangements: a second look." *Monthly Labor Review.* November 1998, tables 13 & 14, pp.17–19.

Independent contractors select own benefits, therefore, they are listed under "receiving" in the table. n/a: not applicable.

on-call workers receive health care insurance from their employers. (See table 7.3.) While some non-traditional workers have access to health insurance



through another source, they are much less likely than traditional workers to be covered at all.<sup>24</sup>

A large percentage of non-traditional workers are also excluded from participating in an employer-sponsored retirement plan. In 1997, for example, only 10 percent of temporary help agency workers were eligible for employer-sponsored pension plans based on their own employment.<sup>25</sup> Use of voluntary retirement plans is also often low for a couple of reasons. First, some workers do not earn enough to afford to contribute to a retirement plan. Second, for some, their status as an employee is so uncertain that benefits become inaccessible.

Some nontraditional workers have access to health insurance and retirement plans through their spouses or other sources. Not all nontraditional workers, however, are fortunate enough to have this alternative, and high divorce rates indicate that spouses may not always be able to rely on each other for their future security.

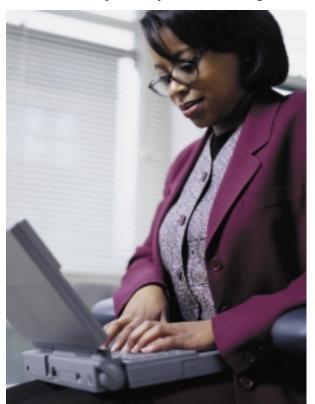
**Flexibility.** The advantage of nontraditional work for some workers is the added flexibility that helps balance work with family and other responsibilities. For example, in 1997, slightly more than half of the women independent contractors combined their work arrangements with their work at home raising children. Roughly 25 percent of inde-

<sup>\*</sup>SOURCE: Craig Copeland, Paul Fronstin, Pamela Ostuw, and Paul Yakoboski. "Contingent Workers and Workers in Alternative Work Arrangements." *EBRI Issue Brief*, March 1999.

pendent contractors, 20 percent of temporary help agency workers, and 53 percent of on-call workers worked part time, as compared to 18 percent of traditional workers. Many individuals in alternative employment relationships report satisfaction with their arrangements, although a majority of temporary agency employees (59 percent) and contingent workers (56 percent) prefer a standard job.<sup>26</sup>

## Regulations and workplace protections.

Both employment and labor laws were created primarily with the traditional, full-time, permanent labor force in mind, but members of the nontraditional workforce also need legal protections and recourse. To qualify for coverage under some federal employment laws, a nontraditional worker may face the difficult task of proving the existence of an employment relationship and it may not always be clear who has responsibility for the wellbeing of the



worker.<sup>27</sup> In 1994, the Commission on the Future of Worker–Management Relations noted the future challenge of balancing worker needs for diverse, flexible employment options and workplace protections with employer needs for flexibility in order to remain competitive in a global economy.<sup>28</sup>

### The future of the nontraditional workforce

Acording to one national study, 65 percent of employers believed that, in the future, firms would increase their use of flexible staffing arrangements.<sup>29</sup> The use of nontraditional workers fits with the evolving perceptions of employers regarding labor costs, competition, changing obligations, and potential litigation. "Just in time" workers mirror the successful industrial model of "just in time" inventories.

Firms wanting to become more efficient or to protect against layoffs in an economic downturn may use nontraditional staffing arrangements. Such a staffing strategy can improve a firm's competitive position by using the mix of traditional and nontraditional employees that best meets the firm's needs. However, nontraditional employees are increasingly viewed as the just-in-time workforce. These employees receive little employer-provided training and are far less likely to receive benefits through their employers. Their hiring arrangements are frequently handled by the firm's purchasing department, making for a different entry and work status on the part of the firm.

Among nontraditional workers, the number of professionals are increasing. These workers are more likely to command high wages and buy their own health and life insurance. Employers may attempt

to attract these workers by increasing portability of pensions and health insurance. Although increasing in number, high-skilled professionals will remain a minority in the nontraditional workforce.

Changing employer-employee relationships. A workforce composed totally of traditional workers is becoming a thing of the past. While its future proportions are still debatable, the nontraditional workforce will probably increase. At the same time, employer-employee relationships are changing. Whether one thinks about the nontraditional workforce in terms of the changing social contract, a move to just-in-time workers, or a way to make human capital flexible in a competitive global economy, the definitions of employee, employer, and workday are certainly changing, raising a number of issues.

There is a growing policy division regarding the nontraditional workforce. Some perceive this as a large and growing workforce which employers relegate to second-class employment—with no worker benefits, little or no mutual loyalty, and all risk borne by the employee—while employers benefit from lower costs. In essence, they see a strong need to contain this type of work. Others see the nontraditional workforce as an opportunity for the worker to achieve flexibility in work schedule, gain new experiences, or use as a bridge between times of full employment. This latter group sees the growth of the nontraditional workforce as a win—win situation to be encouraged.

With the increase in creative staffing arrangements, including temporary help, leasing, and contract work, there may be a need to examine and possibly reformulate the definitions of employer and workplace for determining responsibility for wages and benefits as well as other standards and regulations.

**Worker misclassification.** It is sometimes difficult to determine whether a worker is an employee of a firm, an independent contractor, or working for a third party. Whether the employer's record keeping is purposely obscure or there is an honest mistake, workers entitled to benefits may not receive them. Worker misclassification is not an easy problem to solve and will only grow worse as more nontraditional workers join the labor force. Courts and Congress have been asked to address this issue, usually on a piecemeal basis under a specific law. As the nontraditional workforce grows, it will become even more important for the Department of Labor and other government agencies to help employers maintain proper classifications. It is also imperative that private firms, business associations, unions, and intermediary organizations address these complex problems and find solutions that enhance workforce flexibility, while giving workers and taxpayers what they deserve.

**Training.** Nontraditional workers generally receive less training than do traditional workers for a number of reasons, including employees' lack of a longterm commitment. Regardless of the reason, this nation cannot afford to let any class of workers fall behind in skill development. Temporary help agencies, labor unions, nonprofit organizations, and employer groups can enhance their training of various work groups. Small businesses that lack resources can participate in sectoral training or train



through intermediary organizations such as temporary help agencies. Government can support such training, either indirectly through diverse organizations, or directly, as in the support now given by the Department of Labor and by the Small Business Assistance Programs in various federal agencies.

Worker benefits and protections. Non-traditional workers receive fewer benefits—be they health care, vacation, unemployment compensation, or pensions—than do full-time workers. Some of this is due to eligibility and coverage definitions; some, to improper company record keeping; and some, simply to lack of access. These complex issues are not easily resolved. While not all nontraditional workers will, or perhaps should, receive the same benefits as other workers, much can be done to help them obtain

access to essential benefits. This raises challenges for corporations, small businesses, labor unions, contracting firms, and temporary help agencies on a number of fronts. Options include: increase the application of already successful models, such as portable pension plans; broaden eligibility requirements; and keep better records so that workers' potential wages and benefits can be properly ascertained. While these solutions may at first appear to be disadvantageous to employers because of their costs, to labor unions because they encourage nontraditional work, and to temporary help organizations because it reduces their competitive advantage, self-determination and cooperative ventures in fact offer some of the best solutions.

## DOWNSIZING AND INSECURITY: MIXED EVIDENCE ON MAGNITUDES

Another aspect of the changing workplace is the increasing job insecurity for some workers. Job insecurity is a concern of workers in both traditional and nontraditional work arrangements, particularly in a dynamic economy characterized by high rates of job dislocation as well as job creation. It arises from worker concern both about being displaced (losing a job) and about having difficulty finding another equally desirable one. Job insecurity includes both lack of job stability (job change) and workers' perceptions about job security. Job stability can be measured in terms of how long jobs last and whether there has been a decline in job tenure. Job security, however, is more subjective: workers may voluntarily change jobs more often when economic times are good or change jobs less often when they are more concerned about job security and see fewer opportunities. Involuntary job loss clearly provides one measure of job insecurity.

### B O X 7.3

## Who are displaced workers?

Displaced workers are adults ages 20 and older who lost or left jobs because their employer closed or moved, lacked sufficient work, or abolished their position or shift.

Eight million workers—one in sixteen working Americans—joined the ranks of the displaced between January 1995 and December 1997. Of those, fewer than half (3.6 million) were long-tenured workers who had been with their employers three or more years. Of the long-tenured workers, women were slightly more likely to be displaced than men, though men represented a bare majority—53 percent—of the displaced. Displacement hits workers regardless of their race; the proportions of displaced blacks and Hispanics were roughly equal to their representation in the total workforce.

The jobs from which workers were displaced changed dramatically over time. In the early 1980s, nearly half of all displaced workers had lost a manufacturing job. By the mid-1990s, this proportion dropped to roughly one in four. Other industries saw significant increases in displacement rates over the same period. About one in four displaced workers had lost a job in the services, trade, finance, insurance, or real estate industries in the early 1980s; by the mid-1990s, one in two displaced workers had lost a job in those industries.

The oldest displaced workers were the least likely to find new jobs. Only about one in three displaced workers 65 or older had found a new job by February 1998. By contrast, new jobs had been found by over eight in ten workers 25 to 54 years of age and by six in ten workers 55 to 64 years of age.

Because a worker can be displaced from his or her job at any age, or from any industry, there is a lifelong need to continue learning in order to reduce the likelihood of displacement and to improve job prospects if displaced.

How much value do workers place on job security? While loss of a job is generally an unpleasant experience, a highly skilled and highly mobile workforce may place a lower value on job stability and may even value voluntary job change and job variety. Concern about job security probably diminishes for many workers during periods of low unemployment when the risk of long periods of unemployment is less.

Many people believe job insecurity has increased in recent years, despite low unemploy-

ment rates that would seem to indicate increasing job security. The 1980s and 1990s have been marked by concern about "displaced" workers—those who permanently lost their jobs because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished. In the mid-1990s, several major news publications ran stories on the extent of job displacement in the U.S. workforce, with the implication that job insecurity had increased. Yet during 1995 and 1996, employment actually rose by 5 million and the unemployment rate fell to its lowest level since the end of the 1990–1991 recession.

Nevertheless, under strong labor market conditions, workers will lose jobs. Such "job churning" is expected even in a strong economy. The mid-1990s stories in the media about job displacement reflected the number of workers displaced during the early-1990s recession, a number certainly greater than the number who had been displaced in the late 1980s and greater still than the number displaced a decade earlier. During 1991 and 1992, 5.4 million workers were displaced; about half of them—2.8 million—were long-tenured workers, workers who had held their jobs for three or more years.<sup>31</sup>

Labor market recovery from the 1990-1991 recession was slow compared to recoveries from earlier recessions. But when economic activity accelerated in 1993 and 1994, both the level and the risk of job displacement began to fall. Between 1993 and 1994—a period of strong labor market conditions—2.4 million long-tenured workers were displaced from their jobs, 0.4 million fewer than were displaced between 1991 and 1992. The displacement rate, which reflects the likelihood of job loss during specific periods, fell from 3.9 percent in the 1991–1992 period to 3.2 percent in 1993 to 1994.32 BLS data show that during the 1995–1996 period, the number of workers displaced fell further to 2.2 million, and the displacement rate to 2.9 percent.33

Of the 2.2 million workers displaced in the most recent period, 83 percent were reemployed when surveyed in February 1998, a considerable

improvement over the 75 percent reemployment rate found among workers displaced during 1991 to 1992, a period of much poorer labor market conditions.34

While most displaced workers eventually become reemployed, they often experience large and persistent earnings losses. Annual earnings of displaced workers in one study fell an average of 25 percent from the year prior to job displacement. One year after displacement, their average earnings remained 15 percent below the earnings of similar nondisplaced workers. During the 7 or more years following job loss, their average annual earnings were 6 to 12 percent below expected levels. 35 On average, however, individuals who completed the Department of Labor's dislocated worker training program and entered employment, exceeded 100 percent of their pre-dislocation wages during the 12 months ending in June 1998.

## JOB TURNOVER: MIXED EVIDENCE FOR THE 1980s, SOME SHIFT UP IN THE 1990s

Though media accounts sometime suggest that longterm job attachments are becoming an artifact of the past, the evidence is actually mixed. While the average worker holds nine jobs by the time he or she reaches age 32, high rates of job change have always been found among students and young workers. As in earlier eras, job attachment today grows as workers mature and settle into their careers.

On the other hand, the American worker has some reason to be concerned about job stability and to make every effort to keep skills current and

adaptable in the event that job change becomes inevitable. Among men (but not women) in their middle and later working years, the median years of tenure with the current employer have decreased.<sup>36</sup>

more-tenured workers experienced declines in job stability. This contrasts with the 1980s, in which the declines in job stability were concentrated among young, less-skilled, less-tenured workers.<sup>37</sup>

Thus, while longterm job attachments continue to be important for American workers, they are becoming somewhat less universal. In the future, workers must be ready to manage the changes and dislocations they may face in a rapidly changing economy.

THE FUTURE

Technological change and international competition have placed a premium on workers who are educated and highly skilled. Even if future labor markets are not as tight as those today, there is every reason to believe that the workplace changes that created today's demand for skilled

Workers with post-high-school education and training will have ample opportunities in the workplaces of the future.

workers will continue.

The need for skilled workers will be reinforced by continuing changes in how companies and other organizations operate, such as use of work teams and increased

Job stability overall declined modestly in the first half of the 1990s, but decreased rather sharply for those workers who had already accumulated a fair amount of job tenure. Reductions in job stability in the first half of the 1990s were greater than those of the 1980s. More significantly, in the first half of the 1990s,

worker autonomy. Employers of the future will place increasing value on workers who not only can operate the tools of tomorrow, but who also can find ways to increase their company's productivity and earnings.

As the workplaces of the future respond to technological change and global competition, as well as the needs of workers, the use of nontraditional employees, such as contingent workers, independent contractors, and employees of temporary help agencies, will likely rise. With the increase in these staffing arrangements, continued attention is needed to ensure that these workers receive worker protections. Additionally, these workforce trends may result in declining job stability. Workers must be ready to manage the changes and dislocations they may face by keeping their skills up to date.